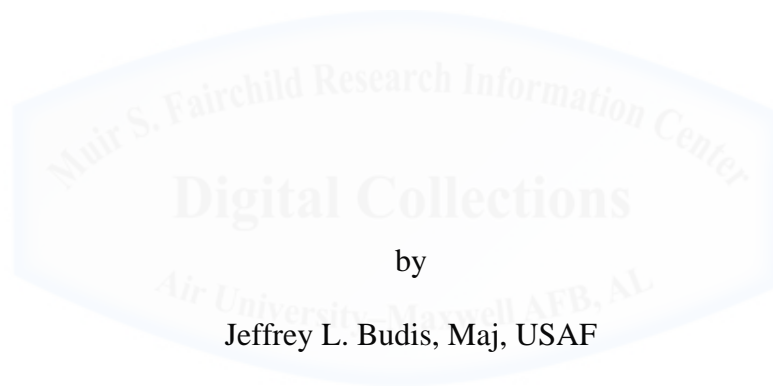


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AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

**RAPID RESCUE: BREAKING THE MOLD OF “ROUTINE”
CONTINGENCY RESPONSE FOR PERSONNEL RECOVERY**



by

Jeffrey L. Budis, Maj, USAF

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Advisor: Dr. Marcia Ledlow

Maxwell Air Force Base, Alabama

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ABSTRACT

After nearly two decades of continuous operations, personnel recovery (PR) forces have become extremely adept at and accustomed to regular contingency response deployments. However, overtasking and underutilization have led to continuous degeneration and numerous inefficiencies as an exhausted force continues to meet taskings with a standardized yet obsolete model for personnel and material. To maintain strategic effectiveness and improve expeditionary efficiency, Air Force PR requires a modernized model for force employment as well as the means to properly promote, educate, and advocate for the right mixture and posture of PR capabilities. This research conducts a two-part evaluation into the process of rapid mobility and of existing-versus-proposed force presentation. It utilizes the proof of concept of the new model as background for the analysis to determine what steps are necessary to develop the Rapid Rescue capability to improve Air Force contingency response. It will illustrate the inherent limitations of the existing process and make recommendations for method and posture that may ultimately lead to timelier response and greater economy of force for an already critically strained Air Force core function.

INTRODUCTION

Amateurs talk about tactics, but professionals study logistics.

– Gen Robert H. Barrow, USMC
Noted in 1980

Rescue is in jeopardy. This seems paradoxical, but it is nonetheless true. The community has reached a critical point where capacity and operational tempo have begun to impact capability. The execution of the Jordanian pilot during the early phases of the air campaign against the Islamic State was an extremely sobering event for aircrew and leadership alike, and the movement of Rescue forces nearer to the fight was arguably the catalyst that reinvigorated a coalition that had become incredibly gun-shy after the loss of one of its own.¹ This event forced the coalition to reevaluate its assumptions as well as its vulnerabilities.

The United States will stop at nothing to preserve human life, however, after more than two decades of sustained combat and dozens of events across the range of military and civil operations, personnel recovery (PR) forces are struggling to keep pace and maintain their edge. Though rescue forces have become extremely adept at and accustomed to regular contingency response deployments, overtasking and underutilization have led to continuous degeneration and numerous inefficiencies as an exhausted force continues to answer requests for forces with a standardized but possibly obsolete employment model. As a low supply, high demand asset operating beyond the traditional tempo band of the air expeditionary force (AEF) structure, the community is showing signs of the tremendous stress it endures to ensure others may live.

While the majority of major combat operations requiring PR support are often predictable based on the geo-political climate and global defense posture, contingency operations remain

critical, time-sensitive tasks that can arise at any time. These vary from natural disaster response to support of time-sensitive targeting anywhere around the globe. The need for lean, highly agile, rapidly employable forces demands a reevaluation of how PR forces can be optimized while maintaining maximum utility.

Systemic problems are becoming apparent across the ranks. At the strategic level, this highly specialized, niche force lacks a voice. With ever-continuing cutbacks and reductions in manning, there are simply not enough well-versed PR professionals to staff all of the essential positions across PR coordination cells, air operations centers, and combatant command staffs throughout the various theaters. In the operational realm, Air Combat Command (ACC) is the singular provider of dedicated Air Force PR capability. The capacity to deploy its power lies in the unit type codes (UTC) of each individual squadron, and while Rescue assets are best employed synergistically, each unit administratively deploys individually. Once tasked, they form a task force that complements inherent strengths and mitigates tactical limitations. But, with only one way to answer each request for force (RFF), it lacks a force posture that is easily adaptable and ready to meet the dynamic challenges that arise. Finally, at the tactical level, Rescue has explored means to better employ its forces, but the effort to implement across the enterprise has been apathetic, ultimately settling for the familiar, standard employment model. Any endeavors to fundamentally revamp its organization have never transcended the squadron level. Operations plans have died on the vine, occasionally seeing periodic revitalization under a new banner only to quickly fade.

The newest iteration is known as Rapid Rescue (RARE). Playing off the emerging capability developed by F-22 squadrons, Rescue seeks to further evolve its rapid deployment capability by incorporating its newest weapon system, the HC-130J Combat King II. However,

if RARE is ever to become a viable employment method, the enterprise and the command must codify, endorse, develop, and disseminate this ability to both the community and to the joint force. To that end, this research seeks to evaluate the feasibility of a rapidly deployable rescue force and answer the question of what steps are necessary to develop the Rapid Rescue capability to improve Air Force contingency response and expeditionary efficiency.

BACKGROUND

Personnel recovery (PR) is one of the nation's highest priorities and a moral imperative. Doctrinally it is the "sum of military, diplomatic, and civil efforts to prepare for and execute the recovery and reintegration of isolated personnel."² Simply put, it is the business of preserving human life, and this mission is, in many ways, second to none. By striving to guarantee the safety of the United States' most precious asset, its people, Rescue bolsters the nation's abilities while simultaneously denying US adversaries the opportunity for strategic exploitation.³ It is an essential support function not only to military operations, but also to civil endeavors.

Personnel recovery, as the umbrella for all activities related to recovering isolated personnel, is a strategic mission that allows the United States to project global power as well as demonstrate strong leadership and resolve.⁴ The Air Force's answer to the PR problem is combat search and rescue (CSAR) and it is but one method that falls under a broad PR mantle. To clarify terms and promote better understanding, one must recognize that while CSAR is a form of PR, PR does not necessarily equate to CSAR. This is particularly important when referring to a PR task force (PRTF). A PRTF may not necessarily be comprised of a single

service or specific weapon system but is an amalgamation of systems and skills. From this point forward, CSAR will refer to USAF-specific personnel, equipment, and capabilities.

Throughout much of modern Rescue's formative years the community sought to make a name for itself, but it walked a fine line between its highly specialized niche of CSAR and overextension of mission in an effort to justify its existence.⁵ It has since settled into a comfortable medium of maintaining focus on its core capability without sacrificing opportunities to secondarily employ when and where it is most needed. Rescue has extended its operational reach into every type of other combat operations, far beyond that of its core mission of CSAR.⁶

The US *National Security Strategy* acknowledges that no matter where in the world they may be, home or abroad, the protection of American citizens and those of its allies remains at the top of the strategic risks to American interests.⁷ The United States will make every effort when available and appropriate to integrate with its global partners, but will also act unilaterally when necessary. The newest *National Defense Posture* further illustrates that as global engagements fluctuate, the Department of Defense (DOD) must reexamine its business to improve its agility, adaptability, and capability to respond to rapidly evolving situations and opponents. Planners must be aware of the current commitments and avoid "the trap of presuming the contingency they're planning for would be the only thing we'd be doing in the world at that time."⁸

Many of the same sentiments regarding the changing strategic environment the US military faces reverberate in the Joint Chiefs' *National Military Strategy*; globalization, technological advancements and distribution, and shifts in global demographics, with a focus on the emerging near-peer powers such as Russia and Iran.⁹ Additionally, an important observation is made in that the DOD has "consumed readiness as quickly as [the military has] generated it."¹⁰

The DOD can no longer rest easy on the bounty of material support it previously possessed, and it must seek every means to integrate jointly that it may synergize, revitalize, and transform.

Additionally, modern conflict is undergoing a transformative period. The military not only faces the continuous threat of existing and emerging irregular opponents, but also of conventional near-peers simultaneously beginning to challenge the long period of military dominance the US has comfortably enjoyed. Rescue operations in that arena will be extremely dangerous and demand a well-trained, well-organized, and dedicated force ready to execute at a moment's notice. This creates a wide spectrum of operations with an increased frequency of high-intensity, short-duration "flare-up" events that will demand a PR capability.

Each service is therefore responsible for fielding a type of PR force in some form; the Army special operations forces maintain a quick reaction force, the Marine Corps provides teams for tactical recovery of aircrew personnel. However, unlike the other services, no one but the Air Force is routinely called upon to execute beyond its own intrinsic domain. Furthermore, the Rescue mission is far too critical to leave to a "pick-up" game, and an uncoordinated approach to PR invites unnecessary levels of risk for an already high-risk endeavor.¹¹

Guidance

The primary guide for personnel recovery across the DOD is Joint Publication (JP) 3-50. Its purpose is to "provide doctrine for the preparation, planning, execution, and assessment of personnel recovery."¹² Its focus is thereby threefold; establishment and education of command and planning staff, organization and training of PR forces, and preparation of at-risk personnel. The idea is to streamline the "rescue chain" from incident to management to recovery. "PR is, by nature, a reactionary event" after an incident has occurred, whether prepositioned forces execute a preplanned mission or are scrambled with all possible speed to meet the challenge.¹³

This demands that rescue forces tirelessly prepare to execute with speed and precision when tasked. This research in turn concentrates on the elements of command staff and PR forces.

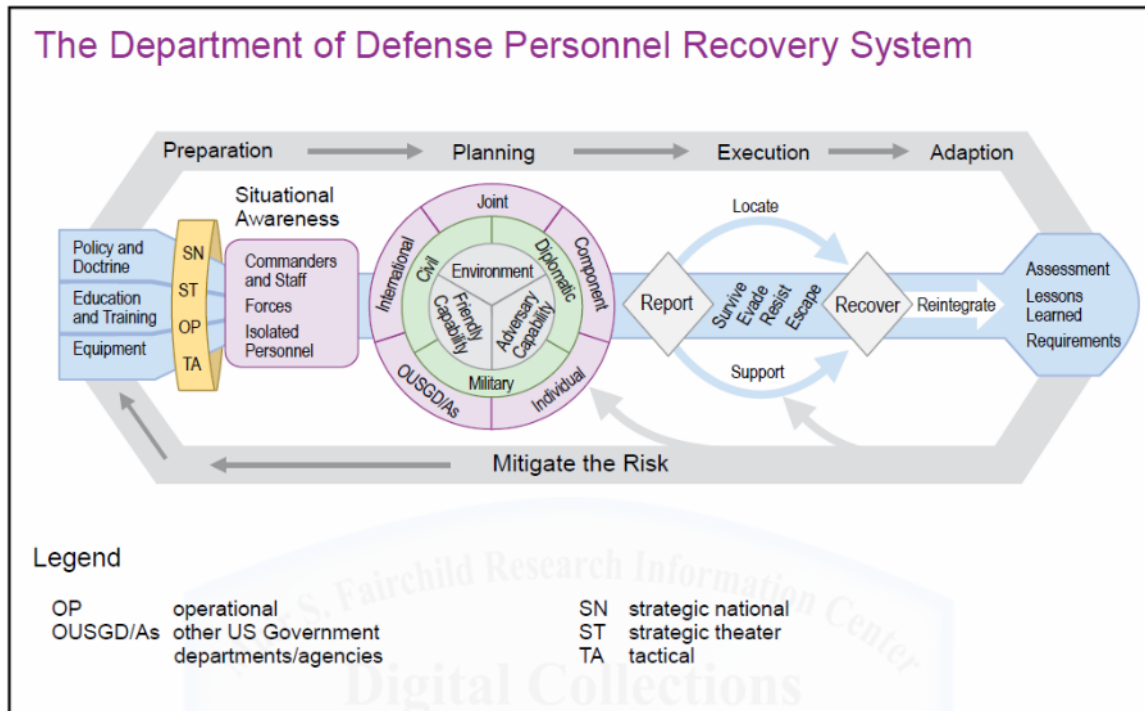


Figure 1. The Department of Defense Personnel Recovery System. This figure illustrates the overarching PR system and the five key phases of recovering an isolated person. (Reprinted from JP 3-50, *Personnel Recovery*, 2 October 2015, I-4)

The most recent ACC strategy recognizes the grave reality combat air forces face as well as the increasingly difficult choices that will need to be made with respect to time, money, and capacity and how those impact capability. The demand for nonconventional missions across the range of military operations is on the rise and this imposes increased stress on the force. With this in mind, the commander of ACC is forced to “weigh capability, readiness, capacity, and tempo” to provide combatant commanders (CCDRs) the warfighting forces necessary to achieve mission success.¹⁴ Furthermore, the overarching AF strategy “[seeks] to develop an agile and adaptable force with requisite balance of capability and capacity.”¹⁵ The Air Force’s ability to

respond to the nation's global challenges is tied to the responsible stewardship of existing resources and the innovation of Airmen to achieve unique effects despite their fiscal constraints.

What this all boils down to is simply this; the world is changing and CSAR must change to meet it. The decision to respond to a rapidly developing contingency is rarely made in haste and decision-makers must weigh options, outcomes, perceptions, and the level of risk involved before acting.¹⁶ It is incumbent upon tactical-level units to be prepared to execute quickly and with as much advanced preparation possible.

Present CSAR Posture

Air Force CSAR combines three distinct weapon systems collectively known as the *triad* to provide “adaptive, scalable...synchronized capabilities” to the combatant commander.¹⁷ This hybrid force combines highly specialized fixed-wing (HC-130J), rotary-wing (HH-60G), and ground personnel (Guardian Angel) units that capitalize on individual strengths while mitigating inherent limitations and weaknesses. Specifically to the Air Force, this is considered a CSAR task force (CSARTF), but it is only one example of an overall PRTF. While made up of three types of forces, CSAR remains a small capacity community. There is a finite amount of assets available to the various combatant commands and many taskings are routinely refused by the primary force provider, simply due to volume. While the number of overall military aviators is in a slow, long-term climb, there is still a limited number to sustain the operational units.

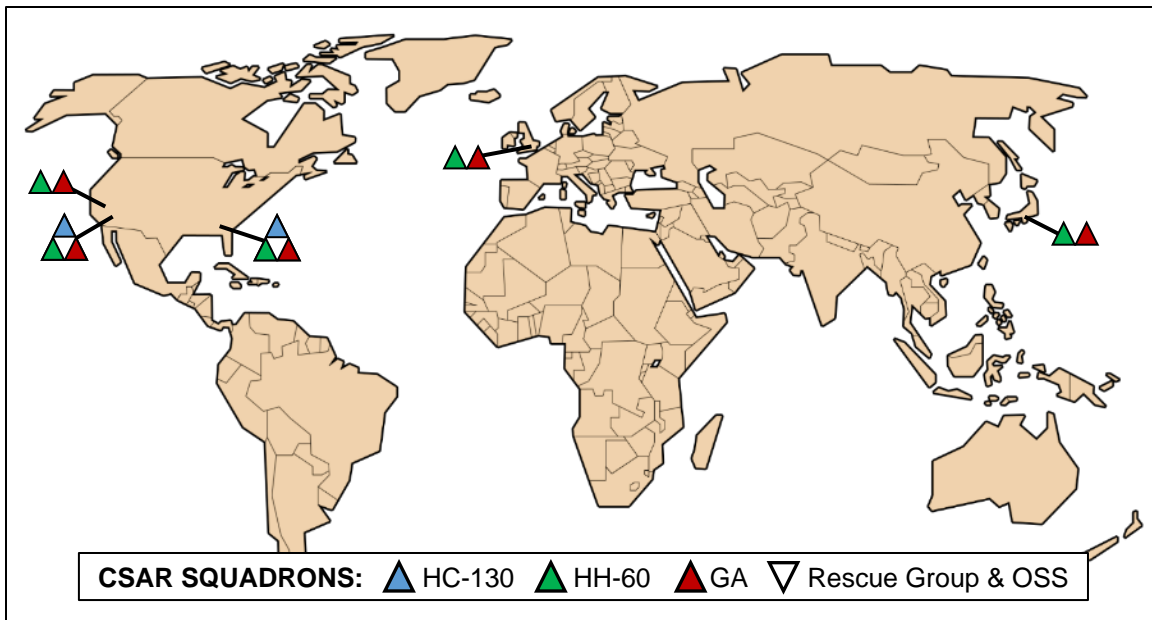


Figure 2. USAF CSAR Active Duty Squadrons

In the active duty force, there are five helicopter units around the world. The total fleet is down 12 percent, totaling 99 aircraft.¹⁸ Of the 332 HH-60 active duty pilots, nearly 30 percent are stationed outside of a combat squadron. Within the HC-130 community, there are only two operational units and a little over a dozen aircraft.¹⁹ With a newer fleet, mission rates are notably higher, but their manning is not much better off; roughly 25 percent of personnel are outside the operational units. Additionally, overall pilot and combat systems officer manning still does not exceed 92 percent.²⁰ Finally, there are now a matching number of Guardian Angel units collocated with the rotary-wing assets. However, these unique personnel see significantly higher deployment ratios as they can be attached to both ground-centric and aviation operations.

With such operational demand, combat units ultimately remain the manning priority. The Chief of Staff's most recent Rated Staff Allocation Plan directs staff to focus on achieving 100 percent manning across line flying units.²¹ Third in line are key air operations center (AOC) staff to be manned to 80 percent, and sixth on the list are all other staffs between 79-87 percent.²²

Within those numbers, fighter pilots receive special entitlements for number of positions filled; near 40 percent in the case of AOCs.²³ This leaves precious few billets outside its own necessary organic staff for PR officers. This additionally translates to operational units being the first of the must-pay bills, further creating gaps in mid-level positions as the force accepts staff shortages to fill rated requirements.²⁴ While Rescue is not unique in this aspect, it impacts them no less.

There is also no shortage of work for Rescue assets. PR coverage has sustained every major operation to date since Desert Storm, and Air Force Rescue currently supports operations across three distinct areas of responsibility (AORs). The legacy mission in Afghanistan supporting the newly renamed Operation Freedom Sentinel (formerly Enduring Freedom)²⁵ continues well into its second decade while additional surging requirements have seen a return to familiar locales like Africa and Iraq.²⁶ The complication is that just because a unit deploys, does not mean it gets to execute its primary mission; there is a lot of waiting.

Most recently, despite the drawdown of Operations Iraqi Freedom, HH-60s, HC-130s, and Guardian Angels (GA) find themselves with renewed job security as the US-led coalition continues to increase its sorties in the fight against ISIS.²⁷ Additionally, enduring responsibilities in Afghanistan and the Horn of Africa continue to tap valuable resources. While the last decade of operations has racked up some very impressive statistics, it tends to be feast or famine for Rescue, depending on the supported command and time frame.²⁸ Some deployments saw only a single tasking, while others peaked at more than 400 missions in only three months.²⁹ Despite the quantity of work, the fact remains that dozens, if not hundreds of personnel are continuously positioned in multiple AORs around the world, merely waiting for a mission to drop.

Unlike many fellow service members, CSAR forces are on a shorter deployment-dwell cycle outside the standard AEF model. However, with the ever increasing demand for Rescue

assets as a risk mitigation measure, the community has settled into a state of a near-continuous less than 1:1 dwell ratio, with additional off-station training obligations consuming the remaining time between dwells. It could be estimated that nearly 40 percent or more of forces are out of garrison at any given time. Additionally, due to the size of the standing force at specific units, some are unable to regularly deploy without effectively mothballing the unit, preventing them from helping to alleviate the burden of the high task load felt across the community.

Breaking the Mold

Rescue is an essential part of guaranteeing air power around the world and its tactical, operational, and strategic utility has been demonstrated time and again. PR forces have been a critical force enabler in Operation Inherent Resolve, supporting more than 37,000 sorties.³⁰ And with coalition strikes already on track to outpace last year's weapons employment, Rescue will certainly be called upon for enduring support to the effort. But as dwindling capacity begins to erode capability, it can no longer sustain the pace of operations as it did before.³¹ Continuous operations have dropped mission capable rates to around 75 percent and less than two thirds of the fleet can meet an operational tasking at any given time.³²

A constant global PR presence is simply unsustainable. By doctrine, "appropriate flow" and "frequent reevaluation" are essential tasks to sustaining PR support.³³ This means that rescue forces must regularly evaluate their organization, training, and equipment. Developing new tactics, techniques, and procedures through training is naturally the simplest way to evolve. Fielding equipment is a constant process at the micro-level through advances in communication and search capabilities, but much slower in terms of mission design series (i.e. aircraft). What rarely occurs is organizational change; most of the time it comes in the form of the opening or

closing of a unit or occasional location realignment, but that is rarely seen in less than a decade.³⁴

Untethered Operations

As the Air Force struggles with meeting an increased mission demand despite across-the-board reductions in force, Airmen are learning to employ their combat power with a more stringent eye for efficiency. Following the command guidance to explore creative ways to better do business, a new concept of employment is beginning to gain traction. Major General Brown, then director of operations for strategic deterrence in US Air Forces in Europe, wrote an article for the *Air and Space Power Journal* describing a new way to meet the demand for rapid global air power. In it, he paints a vivid picture of the direction warfare may be headed.

A lone C-17 landed smoothly in the predawn hours at Ämari Air Base, Estonia....Ämari had yet to experience the devastation of a Russian air attack. The sheer number of NATO basing options made targeting all of them impossible and had so far kept Ämari safe. The cargo ramp was already lowering as the C-17 taxied to a stop and USAF Airmen piled out. The seemingly deserted base came alive as Airmen began organizing the ramp. There were aircraft maintainers, operations and intelligence personnel, and a squad of security forces. They went to work immediately, unlocking and organizing munitions, connecting fuel lines to hydrants, and setting up expeditionary defensive fighting positions. The operations and intelligence personnel set up a deployed ops center. In less than an hour, four Dutch F-16s entered the traffic pattern and landed quickly. Like the C-17, the fighters had barely come to a stop before Airmen clambered over them, helping the pilots unstrap and egress. The aircrews were hustled to the waiting intelligence officers while the aircraft were reloaded with bombs and fuel. The operations update and intel briefings would last just as long as it took the Airmen to rearm and refuel the jets. They would then depart on their next combat mission—their third of the night. In less than two hours, the F-16s were gone, and the C-17 was taxiing for takeoff. The next base was Łask in Poland where a flight of US F-16s was scheduled to join them. The C-17 could do this three more times before it had to return to Ramstein and refit. NATO forces were repeating this scene all over Eastern Europe. The war is going well; Russia simply doesn't have the capacity to fight across such a broad front.³⁵

This concept of employment is called *untethered operations*. Its premise is to take advantage of the robust basing options of global partners to act as jump-off points for small

strategic task forces. It also leverages a leaner logistics footprint capable of enhancing agility, range, and operational tempo. But this double-edged sword also requires studied prioritization of material, which in some cases may slightly reduce capability but never to the point of mission failure.³⁶ Untethered operations could be deliberately planned or employed for crisis response. This “hub-and-spoke” model seizes the asymmetric advantages of rapid global mobility to attain air superiority by denying the enemy the ability to predict location or actively engage in force.³⁷

Rapid Raptor

Recently, the F-22 Raptor community began to explore new ways to meet the ever-growing threat from near-peer powers like Russia and China. They devised a way to rapidly employ a small, agile flight of fighter aircraft with little warning and a massively reduced footprint. This has come to be known as Rapid Raptor. Reminiscent of the days of the Doolittle Raid, the basic idea is that a flight of F-22 could scramble to a specific AOR as a show of global power projection or to accomplish a deliberate mission in more diverse and remote regions than would normally be expected.³⁸ In addition to the combat assets, a single C-17 would meet them at a nearby safe location with the necessary personnel and equipment to refit, rearm, and regenerate that flight for continuous operations. After multiple iterations, a Contingency Response Group has begun augmenting the team to provide the much needed baseline logistics that will likely be needed on scene.³⁹ This employment method gives combatant commanders a highly dynamic and immediate strategic option on order anywhere in the world. Even now, the pilot unit continues to exercise and evolve this capability annually.

Rapid Raptor is the initial model for what the commander of ACC envisions as a concept adaptable across the combat air forces (CAF). Referring to Rescue, he stated the CAF is already looking for “Rapid Next.” General Carlisle asserted, “If we have US air power show up in

places and at time people don't anticipate, that has a great effect for assuring friends and partners and has a deterring effect on potential adversaries and aggressors."⁴⁰ By mirroring one of their primary customers, Rescue could lean and synchronize alongside rapidly relocating strike assets, bringing PR nearer the fight faster and producing maximum capability with minimal effort.

Old Lightning Bolt OPLAN

"The ability to quickly aggregate and disaggregate forces anywhere in the world is the essence of global agility."⁴¹ Rapid Rescue is not necessarily a new concept, merely a new version of itself as new capabilities have been procured and tactics have evolved. Its predecessor was known as the Lightning Bolt operations plan (OPLAN). Developed around 2003 while still part of AF Special Operations Command, Rescue squadrons approached their employment problem from the mindset of their parent command. They wanted a lean and lethal ability to employ anywhere around the world at a moment's notice. The OPLAN was developed for the squadron, outlining in detail the roles and responsibilities of each department to deploy a small team of operations, maintenance, and support personnel (62 total) and its three MH-60G Pave Hawks and associated equipment (8 pallets and various rolling stock).⁴² This force was designed to be smaller than normal, a mere 40 percent of its full strength. This detachment would be capable of two weeks of operations before requiring resupply or redeployment. Though it had the potential to revolutionize the response to a crisis or a short-duration operation, this OPLAN would never develop into more than a unit level course of action. It remained subject to the deployment process and the tailoring of existing forces. It also failed to incorporate an essential piece. The HC-130, as a vital piece of the Rescue puzzle, provides helicopter air-to-air refueling, aerial delivery, and battlefield command, control, and communication.

The Lightning Bolt has already proven its utility. In 2006, CSAR forces were given a short-notice assignment to provide support to a Presidential engagement in Pakistan. Rotary-wing assets were able to successfully complete its two-week mission and redeploy with a minimal footprint and limited support. The after action report identified numerous tactical-level complications encountered along the way (bed-down, security, etc.), but ultimately deemed the mission and plan a success.⁴³ Most importantly, Rescue proved that when a *capability* was asked of them, they could sufficiently determine and field the proper force required for the mission.

Rapid Rescue

In line with the increasing development of untethered operations, PR must in-turn model its own posture and force presentation to keep pace with the demand for support without exhausting personnel and material to the point of mission failure. Air Force PR has been steadily deployed for nearly two decades, conducting missions across the full range of military operations from overseas combat deployments to stateside humanitarian response. Over time, CSAR forces have become accustomed to high-frequency, short-duration deployments. Depending on the time period and the task, forces have sat generally idle to the point of atrophy or been utilized to the point of depletion. This high task-load has driven force presentation to that of single UTCs which have since become the standing answer to all force requests. However, mission demands are often best met by capitalizing on the synergistic abilities of the CSAR triad. Posturing a lead UTC from each individual squadron creates redundancy to the point of excess as each is equipped to operate apart from its sister units, but rarely does so. This results in overtasking and underutilization as excess or redundant personnel and equipment flow into theater.

According to JP 3-50, CSAR forces train, equip, and proactively conduct mission planning tasks to support theater OPLANs. During the deliberate planning process, there is time to thoroughly define the environment and prepare courses of action in response to anticipated scenarios. However, this process is neither timely nor suited to contingency response. During crisis action planning, PR forces must expeditiously organize, deploy, and execute, often without the luxuries of pre-mission preparation. At the operational level, PR subject matter experts are not always available to constructively guide the decision making process to ensure the right PR force is ordered. This results in a “PR force mismatch;” a deployed force that, while capable, may not be the best match for the operating environment.⁴⁴

Existing TPFDD Process

The Joint Operation Planning and Execution System (JOPES) is the beating heart of the DOD deployment process. It is the “single, integrated joint command and control system for conventional operation planning and execution.”⁴⁵ This process allows combatant commanders to determine the method of accomplishing their task and the means by which to build and maintain the force options to accomplish their mission. It uses the Time Phased Force Deploy Data (TPFDD) system to then program movement timeline and source transportation options.

The unit type code is the basic building block by the DOD to employ operational and support capabilities. Each UTC is made up of two specific subsystems; the personnel are represented in the Personnel Manpower Force Packaging System (MANFOR) and the associated logistical support equipment required is captured in the Logistics Force Packaging System (LOGFOR).⁴⁶ The capabilities of that UTC are then defined by its Mission Capability (MISCAP) Statement. This MISCAP is an essential part of the UTC as it defines the capabilities

and limitations of the force as well as indicates the required support to the UTC (basing requirements, communications, fuel, etc.).

METHODOLOGY AND CRITERIA

An understanding of rescue and its current state provides the foundation to determine if there is a better way of doing business. Rapid Rescue (RARE) is ultimately an exercise in logistics and will be evaluated as such. The RAND Corporation conducted a study into reducing the expeditionary footprint not long after the Air Force transitioned to the air expeditionary force structure and moved away from a Cold War mindset to that of a highly mobile, rapidly deployable force. In their analysis of a deployed air expeditionary wing (AEW), they found the total footprint to be extremely cumbersome, with approximately 70 percent of the force being comprised of unit support equipment.⁴⁷ The case is much the same here. To effectively compare the existing model against the proposed, standardized criteria will help accurately capture essential characteristics required for effective employment.

Time

The first and foremost criteria is *time*. “Short-notice PRTF operations are extremely dependent on the ability to quickly and effectively marshal the required interoperable forces to effect a recovery.”⁴⁸ As Moulton and his team highlights in their RAND report, time is the most crucial element when it comes to PR.⁴⁹ While the actual results are not statistically valuable to

this research, this same appreciation for time must be applied across the entire process, from notification to response and ultimately execution.

This factor has multiple facets and can be measured across multiple phases of an operation: pre-deployment force validation, pack-out and loading, enroute transit, build-up, mission execution, and reconstitution. For the purposes of this research, time will be analyzed overall as pre-mission and execution. Pre-mission time is that spent planning, preparing, and validating force requirement. Execution time captures the deployment phase. Personnel recovery is one of those missions where time is of particular value. Every moment spent deliberating or delaying action jeopardizes the ability of rescue forces to recover their objective. As evidenced in Syria, this can have the direst of consequences.⁵⁰

Footprint

The second determining factor is *footprint*. Like time, this metric refers to multiple subcategories including quantity of airlift assets required and total numbers of personnel, equipment, and mission aircraft required. This is crucial simply by the fact forces cannot “bring the kitchen sink.” Base operating support (BOS) and boots on ground (BOG) factors constrain the footprint PR forces can employ. Target locations may or may not be able to support employment. Airfield limitations could restrict the flow of material into theater. For example, an airfield might not be large enough to handle the massive clearances necessary for a C-5 Galaxy. Another might not have the weight-bearing capacity to handle the C-17 Globemaster, despite its smaller dimensions. While one transport aircraft makes the most sense for deploying in a singular effort, it may restrict how close PR assets can be delivered to the objective. Ultimately, speed and agility are directly dependent upon the size of the logistical footprint.⁵¹

Load Plan

The third criteria is the *load plan*. This tactical criteria stems directly from the second, but is in its own right no less important. Finite airlift and space naturally restrict the flow of personnel and material. The existing OPLAN advertises only two options: a single C-5 or a pair of C-17s. The natural inclination is to seek both lean and lethal, but just one additional C-17 would increase capability and flexibility exponentially. Being realistically prepared for possible flows from the tanker airlift control center allows planners to improve the first criteria—time. As a result of varied load plans, there will be fluctuations in capability, and a force with reduced tonnage will naturally have less equipment. The extent of shortfalls will be addressed within.

Limiting Factors

The last criteria is the limiting factors of each. This a holistic, broad view of concept of employment. Examples of factors to be considered here are synergy, excess, flexibility, and risk to force. The RAND study by Galway and his team determined similar criteria when they examined the deployment process and postured force of the 4 AEW. They determined total material, cost, flexibility, and risk were key factors in their analysis.⁵² However, the viewpoint was from that of the base planner and how to deploy a force, whereas this research approaches the problem from that of the fielded force itself. Some of the criteria match regarding flexibility and total material, but risk will assess likelihood of mission success based on potential configuration of the deploying force.

ANALYSIS AND RESULTS

The Process

There are considerable hang-ups in the entire process. The unit type codes (UTCs) themselves are modularly designed to employ with initial and follow-on forces.⁵³ However, Rescue UTCs are a singular entity; follow-on for their purpose is an additional full UTC. There is limited room for adaptability without significant modification. Service guidance provides a provision for “cross-pollination” of UTCs in an effort to synergize capabilities under a single, cross-functional force. However, this process is extremely difficult and time-consuming as the Functional Area Manager (FAM) responsible for this hybrid UTC would have to coordinate with every FAM of each weapon system and Air Force specialty code utilized therein.⁵⁴

Limited flexibility does exist in the Joint Operation Planning and Execution System (JOPES) and the TPFDD process, but scaling and tailoring often becomes an arduous, back-and-forth process that consumes precious time and delays execution of a deployment plan. These delays start before forces even depart garrison. Planning staffs have difficulty preparing for the arriving force due to wide variability in the size and complement of the force that is eventually fielded. Instead, to determine the feasibility of the proposed model, a baseline of the existing one must be established as a reference point. Currently, the Air Force’s PR Task Force, when tasked in its entirety, totals out at 6 aircraft, over 400 short tons of equipment, and what could amount to upwards of 350 total personnel. That is an enormous footprint to bed down at any location. However, this also assumes that each specialty’s UTC is deployed in its entirety in accordance with its design. The end result is a gross amount of excess across the force.

For example, within this number you would find six command, nine medical, eight intelligence, and nine aircrew flight equipment personnel, just to highlight a few. Supposing the operations center is manned around the clock, there is little need for eight intelligence personnel

nor three commanders for such a short operation. If the UTCs were truly integrated, overhead could be reduced by more than 50 percent. Referencing a recent deployment, an intelligence officer was tasked for a short-notice deployment with only weeks to prepare, only because the deployed commander demanded every person that the MANFOR afforded him.⁵⁵ This person went on to serve as a deployed executive officer, a position outside their primary specialty. This instance illustrates both the excess generated by how CSAR forces integrate across their group as well the level of detailed scrutiny necessary to avoid similar cases.

Progress Made to Date

In the effort to revive the Lightning Bolt, the task-lead group, the 347th Rescue Group (RQG), has planned and executed multiple local live-fly iterations as well as an overseas proof of concept. The local exercises were used to gather data and establish capacity and capability baselines. Additionally, these were used to build command relationships for future exercises and training opportunities, continuation training being an essential part of making RARE a reality. Local events exercised the entire process from notification and pack-out to personnel processing and aircraft generation. Three significant accomplishments were achieved here. First, templates for actual numbers and specialties of personnel and mission equipment were established. By culminating these events with actual training missions, the lead units were able to separate must-have material from that which could be done without for the short duration of the tasking. Second, employment baselines for effectiveness and time-to-execute were developed. As a rule of thumb, CSAR forces could be wheels up on their mission within five hours of arrival at their forward operating location. Finally, the exercises resulted in the development of a training plan and execution templates. Much of RARE is conducted in haste, which is why detailed plans are all the more important. There is not enough time to continue reinventing a wheel that Rescue

forces are generally familiar with. Training and standardization will improve proficiency and organic capabilities as well as reduce risk to a small-footprint force deploying to what could be considered an abnormal location (i.e. not the large, well-established bases).

The events were extremely useful from a tactical standpoint, however a significant limiting factor was identified. Before the airlift were able to depart, one of the aircraft suffered a significant maintenance problem preventing its departure.⁵⁶ This aircraft contained two of the three helicopters while the other contained the majority of the personnel. Had this been an actual mission, this “all eggs in one basket” situation would have jeopardized mission execution.

Proof of Concept

In the fall of 2015, units from the lead group deployed in support of Exercise Trident Juncture. This was NATO’s largest joint theater exercise in more than a decade focusing on its Connected Forces Initiative. It involved nearly 36,000 personnel from 30 NATO countries and over 140 aircraft and 60 ships conducting field operations spanning across the Iberian Peninsula and northern Mediterranean, from Portugal to Italy.⁵⁷

Within this backdrop, Air Force CSAR seized an opportunity to execute an overseas proof of concept for its emerging RARE capability. The RQG deployed 61 personnel and four aircraft to Beja, Portugal for 10 days to test the capability and showcase personnel recovery (similar quantity as the Lightning Bolt but with an additional weapon system). The group organically moved operations personnel on its HC-130J aircraft ahead of two C-17s transporting the HH-60G helicopters and various maintenance and support personnel and equipment. Upon arrival, the CSAR task force plugged into the existing NATO infrastructure and conducted a series of missions ranging from traditional recovery of isolated personnel to air drop. Missions

did not, however, include any type of ordnance employment. This exercise allowed CSAR to effectively test its rapidly deployable, short-duration contingency response capability.

The proof of concept generated numerous lessons learned across the entire endeavor, from initial force development to final tactical employment. It allowed forces to accurately assess what specialties and equipment were vital to the mission, given that space and time were at a premium. It also identified significant gaps in logistical and communications support when working with other-than-US organizations.⁵⁸



Figure 3: The first of two HH-60G Pave Hawks begins roll off. Courtesy of Christian Timmig.

It is important to note, this event encountered a similar situation as a local live-fly exercise. Due to administrative airfield limitations imposed by airlift planners, airlift arrival was staggered hours apart. Due to shifts in priority and complications, this first aircraft would not arrive until two days after the initial advanced echelon arrived on location. The second airlift

would not arrive until two days beyond that, effectively four full days later.⁵⁹ The majority of the flying crew arrived with no aircraft to fly, and when some aircraft trickled in, they lacked necessary equipment that had been moved to the second chalk by home-station personnel. A significant failure of communication and prioritization could have caused a catastrophic mission failure.

Comparison, Old versus New

Rescue demands flexibility due to its reactive nature, however, the only solution is the UTC of each individual weapon system. While Rescue units mobilize individually similar to other traditional weapon systems, they embed together upon arrival to theater. A full fixed-wing UTC alone is massive. It includes multiple HC-130Js and more than 190 short tons of equipment to include roughly 175 personnel over a wide range of specialties. The rotary-wing UTC is not much better. Though it may have a few less people, it requires a higher amount of equipment tonnage. The GA UTC on the whole is relatively small comparatively but still averages nearly a full ton of material per person.

The *footprint* itself is no less cumbersome. The chart below provides a visual comparison of the personnel and equipment requirements of each of the three CSAR UTCs. As illustrated by a recent deployment, the standing PRTF was so massive that the primary location of choice was unable to support colocation of all assets. BOG and BOS limitations constrained combat capability and created a myriad of administrative problems from logistics flow and communications to operational impacts during mission execution. Alternatively, operations during Trident Juncture demonstrated that the RARE CSARTF was able to complete all its missions while functionally being able to accomplish the majority of its entire mission-skillset.

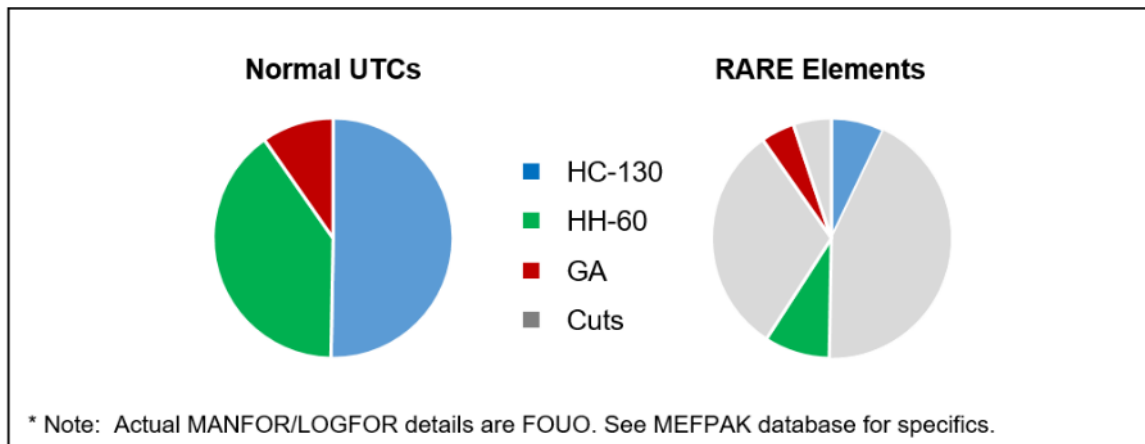


Figure 4. Comparison of Standing UTCs vs Rapid Rescue

During an interview with members of the logistics readiness squadron, an important limitation was discovered. The rigidity of the TPFDD process inhibits the maximization of available space in pallet positions. Increments from individual UTCs are typically not merged with others because the item dimensions are predetermined so that planners can better plan for transport and facilitate their flow into theater.⁶⁰ Plainly put, two boxes would sooner to be sent downrange half empty before they would be consolidated into one.

As each deployment is different, the *load plans* themselves ultimately end up different. Though there are only so many different ways to load an airlift aircraft, each time a deployment tasking is ordered, logistics readiness personnel and unit deployment managers (UDMs) must interface and prepare detailed load plans before sourcing airlift. In effect, each deployment is conducted as if it were the first time, despite having been under a constant deployment cycle for more than a decade. This work is redundant at best, and while it is made easier by maintaining prepared detail documents, the process itself is still run from the start every time.

Additional discussions were conducted with Rescue UDMs across the 347 RQG to determine what factors, if any, were deterring the process. The primary takeaway is that the ability to condense equipment after tailoring of the LOGFOR is, in fact, possible. The problem

is that UDMs are not permitted the administrative authority within the planning system to make the necessary load plan adjustments to how the equipment is organized by the fact the average UDM lacks the skill or regular proficiency to skillfully navigate the system. Given the reactive nature of Rescue and constant deployment cycle of units as well as individuals, UDMs within these squadrons are alternatively well-versed in the nuances of the system. If they were given the proper permission, they could easily condense collective Rescue equipment, maximizing space utilization and increasing overall capability.

With regard to *time*, it is no small endeavor to move each of these UTCs individually. A routine deployment usually requires no less than 7-10 days before establishing its full operational capability. Transit alone to an AOR typically lasts three days, assuming travel goes smoothly and there are no unforeseen delays enroute. Once in theater, operations need to be stood up, aircraft must be unloaded and prepared for operations, and in some cases living and work quarters must be built by the deploying personnel themselves. Often PR forces will not be assuming alert before two weeks have passed since the first troops have left garrison.

This is where it starts to get complicated. To minimize overhead and operate within lateral limitations, Rescue commanders must coordinate amongst the triad to make sure the right specialties arrive to accomplish the mission. A combatant commander or subsequent unit commander is entitled to every person and piece of equipment per the MANFOR and LOGFOR details, but this results in an extremely large ground and sustainment footprint. Additionally, there will be overages where more personnel will not necessarily equal increased capability.

Exercise Trident Juncture confirmed the already proven capabilities of the Lightning Bolt plan and validated updated metrics for the emerging Rapid Rescue model. RARE strives to eliminate the excess while increasing response time and flexibility. Due to the sensitive nature

of personnel and equipment specifics, outside analysis was conducted to develop a line-by-line comparison of the two models, setting the proven metrics of Trident Juncture and operational uses against the baseline data provided in the TPFDD of the existing UTCs. The result was an overall force contingent significantly smaller than standard UTCs currently in use. Manpower by weapon system was reduced by 86 percent (HC-130J), 78 percent (HH-60G), and 53 percent (GA), respectively. Equipment footprint saw the most drastic reduction, dropping from 118 pallets of equipment to only seven. It is worth noting that this is primarily based on space limitations, but it still maintains the majority of the advertised capabilities.

Learning Its Limits

As enablers, CSAR forces operate outside of the AEF construct and have achieved their own scheduling homeostasis, and though efforts have been made to stabilize the deployment tempo, the enterprise will never be able to fully posture in a way that allows CSAR to meet all its taskings quickly enough. Having the capability to rapidly deploy and employ is required to execute this life-saving mission. As continuous operations draw down and the US overseas military posture recedes, a leaner, more expeditious model is required to effectively deploy PR forces more quickly and with a smaller footprint.

There are a number of topics that will need to be addressed to streamline the Rapid Rescue process. There are limitations with strategic airlift regarding how hazardous material can be transported; there are crew duty day issues that will surface depending on the location of the target event. These are only a few examples of hurdles that must be addressed by the proper authority who is both allowed and willing to accept the risk. This is the core of Rapid Rescue; what risk is the force willing to accept to achieve a higher measure of success.

RECOMMENDATIONS

To better sustain the PR enterprise and capitalize on the asymmetric advantages that rapid airpower provides, a new model of employment must be formulated that provides the required support to the combatant commander while maintaining the delegated flexibility to posture sufficient forces and achieve economy of force. When an OPLAN calls for PR, a capability is requested rather than individual unit. The existing UTCs are too rigid and too cumbersome to rapidly employ around the globe. Strategic airlift is finite and in heavy competition for priority. Personnel and equipment loads are often tailored down to meet BOS and BOG restrictions. Furthermore, existing capabilities and emerging concepts of employment must be accurately advertised to the joint force. PR advocates must be properly placed and utilized to provide subject matter expertise to the geographic combatant commands. It is time to reevaluate the model in which PR forces are provided to better organize, train, and advocate for the effective and expeditious execution of the PR service core function. Once developed, this capability must be presented by appropriately staffed PR experts and provided to the combatant commander and operational planners to achieve unity and economy of force without exceeding PR capacity.⁶¹

Tactical Employment

Streamlining the entire Rescue process begins with predictively preparing for the most likely employment methods. Despite the rigidity of the process, units can easily be prepared to execute within this construct through the judicious use of TPFDD templates developed by RARE planners. By designing these templates according to desired force posture and capability, valuable days, if not weeks, can be saved by not having to sort out line-by-line details of who and what to deploy. Capabilities-based force packages will become modular, off-the-shelf

solutions and may only require very minor changes before pressing to execution. These templates could achieve the desirable RFF-TPFDD hybrid which would take advantage of both the speed of the RFF process and the organization of the TPFDD.⁶² Expediting the process from deployment order to departure improves response time as well as focuses personnel to primary mission planning rather than wasting time determining their equipment loadout.

TPFDD templates would become living personnel and equipment documents that could effectively “mimic [the] RFF’s versatility.”⁶³ These flexible blueprints would require periodic evaluation to ensure best practice as well as rapid dissemination and implementation across the community. Additionally, revamping the existing MISCAP is a necessary step to ensure forces are ordered in accordance with the new posture and that requirements to employ are captured and communicated. This statement educates as well as appropriately prioritizes supporting assets by helping drive the timeframe of which forces will move into theater and “[reducing] the amount of detailed planning and coordination needed during [CCDR] Crisis Action [planning].”⁶⁴ As the majority of CSAR forces cannot deploy organically, this is a creative way of “lighting a fire under” supporting organizations. Additional coding of specific personnel and equipment line-items will permit strategic prioritization. Individual UTCs should build in partial statements that support the common advertisement for Rapid Rescue: CSAR forces (1) capable of one mission every 24 hours, (2) deployable within 24 hours, (3) on alert/mission within five hours of touchdown (approximately 72 hours after notification), and (4) mission capable up to two weeks.

Part of tactical readiness means being prepared to anticipate likely situations; strategic airlift is one of those areas. Table 1 provides a baseline assessment of likely options for moving the RARE force. Learning from the exercises already conducted, there is inherent value and risk in each. A single airlift provides minimum requirement and footprint but also risks everything

on that one aircraft. Multi-aircraft options can increase flexibility and capability without significant increase to footprint. Appendix A, summarized in the table below, further illustrates possible load plans and maximum amounts of capacity with regard to different airlift options.

Table 1. Capability Comparison of Airlift Options

	AIRLIFT AIRCRAFT	FOOT PRINT	FLEXIBILITY	CAPABILITY	RISK	FINAL SCORE
OPTION 1	1 (C-5)	+1	0	0	-2	0
OPTION 2	2 (C-17)	0	0	0	0	0
OPTION 3A †	3 (C-17)	-1	+2	+1	+1	+2
OPTION 3B ‡	3 (C-17)	-1	+1	+2	+1	+2
0 = Baseline, must-have amount/capability // Negative = Excess // Positive = Advantage ----- † Option 3A consists of three identical airlift loads (one HH-60 and the required crews, team, maintenance, and mixed support) ‡ Option 3B postures like Option 2 but adds a third C-17 of only equipment pallets and personnel.						

Operational Reorganization

For CSAR to become truly adaptive, the community must adopt a more modular, flexible force posture. The operational problem is the lack of an effective method by which to offer Rescue forces. As the counterpoint to advocacy, PR planners and force providers must have something to offer. CSAR would benefit by reorganizing around effects-based solutions by offering properly sized and tailored packages to meet CCDR needs instead of permitting the requester to demand a material solution rather than a capability. As they are typically not well-versed in the Rescue mission, planning staff are ill-equipped to determine specific Rescue needs.

Special Operations Forces periodically publish the *SOF Reference Manual*, an unclassified “planning 101” of what force packages are available across the DOD’s special operations community. This publication is designed for operations personnel, faculty, and planners alike and provides standardized reference data to better plan and employ special

operations capabilities.⁶⁵ This is an excellent model that CSAR could emulate to develop an *a la carte menu* of CSAR capabilities; these predetermined force modules could be easily sourced from the existing squadrons. By properly designing and defining these modules, CSAR force providers would fill the doctrinal gap that fails to properly clarify what possible PR package options and capabilities exist. This would also serve to prevent force mismatches which often result in the overtasking and underutilization of forces.

The CSAR triad synergizes the unique capabilities of its three distinct weapon systems. A logical example of posture by capability is depicted in figure 5 below. This illustration shows five possible task forces that could be fielded: a ground-only element, a rotary-wing element, a fixed-wing element, a Rapid Rescue task force, and the full Expeditionary Rescue Group made up of the three primary existing UTCs. These unique task elements, similar to the defined naval special warfare task units outlined in the *SOF Reference Manual*, provide right-sized forces that reduce overkill and help preserve personnel and fleet health without unnecessarily sacrificing existing capability. Built upon the templates described above, this menu also reduces overhead as well as time wasted repetitively tailoring forces. The menu could be readily available to PR planners who might not actually be from the PR field, or when they are unavailable. While not under the control of AF Special Operations Command, if a stand-alone publication is not developed, the existing *SOF Reference Manual* is the best place to relay CSAR force posture.

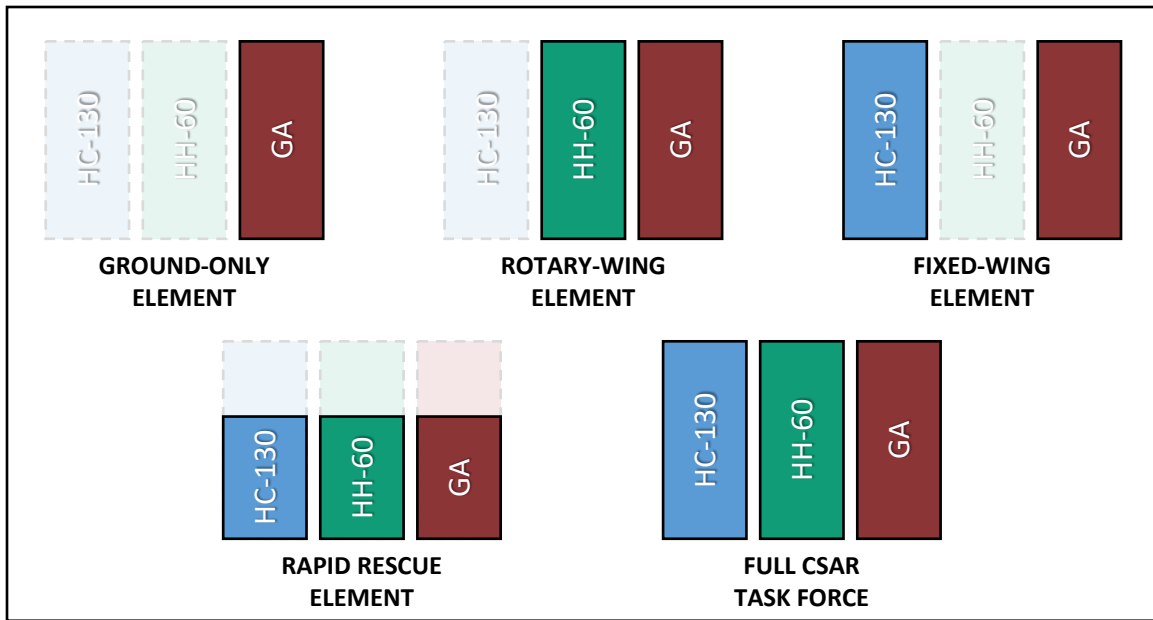


Figure 5. Proposed Combat Search and Rescue Task Units

Numerous studies have attempted to settle the debate over which system works better, the RFF or TPFDD process. Most agree upon the same common idea; the TPFDD is rigid and cumbersome, but the RFF process tends to be clumsy and undetailed despite its speed and flexibility.⁶⁶ Forces must posture and employ to do both. The templates described above allow planners and operators to get ahead of the process. By understanding it and preparing for likely force-flow, off-the-shelf solutions can be provided that satisfy the need for speed, flexibility, and detailed plan execution. “This way, [CSAR is] organized to...more easily fit the JOPES and TPFDD process as well as protect the rescue triad from superfluous taskings.”⁶⁷ Armed with something to offer, the final piece of making Rapid Rescue a true reality is strategic advocacy.

Strategic Advocacy

The value of properly experienced and educated personnel is critical as it not only provides for use of the capability, but it also ensures that the right-sized and correctly equipped forces are being ordered. Joint doctrine recognizes that “appropriately staffed and trained

personnel at the JPRCs and PRCCs allow for continuity, reduce PR response times, and facilitate integration within the joint force.”⁶⁸ Additionally, these staff are uniquely positioned to provide essential input to OPLANs and ensure proper and effective capabilities are ordered.⁶⁹ However, by failing to staff these critical positions, whether by necessity or by choice, the joint PR community is unable to effectively direct integration and provide unity of effort or economy of force. Without proper advocacy, a divergence begins to develop as planners and combatant commanders turn to a material solution instead of focusing on the capability needed to achieve their mission. The end result is an outside organization dictating what personnel and how much equipment deploys causing the community to lose control of its ability to effectively schedule and maintain an already strained manning and utilization rate to the point of collapse.

Unfortunately, shortfalls in manning lead to a “lack of institutional visibility [which results] in service, joint, and coalition partners failing to understand [capabilities]...and ineffectively advocating for resources to match requirements set by combatant commanders.”⁷⁰ Without credible experts strategically placed to guide the highest levels of mission planning and OPLAN development and made worse by a lack of understanding of “unique terminology, operational concepts, and practices,”⁷¹ the CSAR community risks continued subjection to mismanagement and improper allocation which will become increasingly evident as utilization rates continue to suffer awaiting the arrival of new aircraft and mission equipment. Corrective action must start now or the community may not survive the wait. Whenever key billets cannot be filled, ways must be established, as described above, to effectively disseminate CSAR best practices and capabilities and equip planners with the tools to execute CSAR.

Process Improvement

Logistics remains the critical area where Rescue force can gain significant time and reduce redundant effort. Though the deploying force is at the mercy of the deliverer, planners must be careful about allowing logistics to dictate or determine how operations are executed. Decisions are being made interior to the process that have strategic ramifications down the line. For example, when determining the flow plan of airlift, an interim planner decided to stagger arrival times based on airfield data on file rather than true information from the site (which was more permissive). Because every person and piece of equipment is vital to the RARE effort, the mission suffered significant delay due to external third-party involvement. Interviews conducted with base planning personnel as well as higher staff have revealed that the current process possesses tremendous inertia that is resistant to change. Regulation, service climate, and operational desire do not currently provide an environment that is open to sweeping change.⁷²

Efforts have been made to improve the overall JOPES process but none have successfully been integrated. “[The] construct has outlived its utility for addressing the dynamic planning environment.”⁷³ Crosstalk between operations and logistics personnel must begin at the lowest levels to find common ground between operational need and the process itself. Squadron, group, and wing policies and plans can be established to “deliver options in the most appropriate and expeditious format... [and] deal with the pace and diversity of today’s threat environments.”⁷⁴

Fit to the Fight

The key to keeping this concept of employment viable is to employ it, and advanced echelons cannot rely on personal experience and after action reports alone. Execution reveals flaws and limitations, and exercising leads to improvements and refinements. Regular live-fly events facilitate training while large force exercises serve to validate the capability. These

events are essential as forces must risk a little failure by leaving the comforts of supply chains and logistics support behind to visibly see and feel the shortfalls in the plan. Rapid Rescue can be applied to nearly every existing exercise and operation, and these opportunities also save valuable time by shortening travel and reducing delays incurred moving organically by ground and air. DOD guidance specifically directs that the PR be rehearsed “as an integral part of operational planning, training, and exercise.”⁷⁵ A significant lesson learned from the last two decades of conflict has been that training, to include the logistics machine, is integral to ensuring the process remains lean and functional. “Operators and logisticians [should be training] together for deployment in exercises where the tools, people, and processes are truly exercised.”⁷⁶ Noted by a pilot who has gone through the training, operators working the line alongside maintenance has increased inter-unit cohesion and team-building.⁷⁷ A single office of primary responsibility should maintain control of the project and conduct a review the load plans and templates regularly and after every execution of a plan. A unified, command-driven training syllabus should be adopted and fielded based upon the work of the pilot unit. By properly exercising an effectively organized force that is appropriately advocated for, CSAR forces can make an evolutionary leap forward in their employment and posture.

CONCLUSION

As rescue begins to move towards sustained contingency response as a global response force, a review of process is necessary to achieve economy of force. And as indicated by the current fight against the Islamic State, PR forces will continue to play a crucial role in ensuring the safety of service men and women put in harm’s way. Training, reorganization, and strategic

placement of personnel to effectively advocate for CSAR will be essential to learn from the lessons of more than 15 years of enduring combat operations and advance the PR enterprise. Since there is considerable uncertainty associated with the role, size, intensity, and location of potential future engagements, CSAR must position itself to meet the strategic needs of the nation while preserving its capacity to continue operations into the foreseeable future.

The force has effectively reached a decision point. To maintain strategic effectiveness and improve expeditionary efficiency, Air Force Rescue requires a modernized force employment model as well as the means to properly advertise and advocate for the right mixture and posture of PR capabilities. The community has arguably been flirting with the idea for over ten years and its value and utility has already been proven. Additionally, it must not become reliant upon the large and sustained overseas presence of the past. As Gen Carlisle puts it, “[PR] is something we have to do, and we have to get it right.”⁷⁸ Now is the time to either commit to the idea or abandon the project and stop wasting the time and effort keeping it on life support.

Rapid Rescue and like-design CSAR task units provide the necessary, flexible capability in both operational mindset and material execution. The focus must be a request for *capability* not a request for force. Crisis situations are too critical and require a more timely response that cannot suffer the tribulations of reinventing the proverbial deployment wheel. This provides the means to increase capability and protect capacity without “incurring increased resource requirements.”⁷⁹ Furthermore, existing capabilities and emerging concepts of employment must be efficiently presented and accurately advertised to the joint force. Rescue owes it to itself and to those in the field to take a hard look at how it does business and to take back operational control. Otherwise, it risks the force as a whole at a critical juncture where it can ill-afford delaying, let alone ‘scrubbing,’ the mission. Rescue “must be aware of the evolved nature of

warfare and of combatant commanders' escalating need for PR beyond the myopic notion of CSAR. With this demand comes a call for new and codified terminology, a vision that looks beyond historical paradigms, and a retooling of how the Air Force organizes, trains, equips, and employs its forces to give war fighters the PR they deserve.”⁸⁰

Notes

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¹⁵ Ibid., 6.

¹⁶ Alan Vick, David Orletsky, Bruce Prinie, and Seth Jones, *The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options*, (Santa Monica, CA: RAND Corporation, 2002), 70-73.

¹⁷ JP 3-50, PR, I-2.

¹⁸ Dave Majumdar, "USAF to reallocate funds from axed CVLSP contest," *FlightGlobal*, 28 March 2012, <https://www.flightglobal.com/news/articles/usaf-to-reallocate-funds-from-axed-cvlspace-contest-370079/>.

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²³ Ibid.

²⁴ Rescue Assignments Officer, Manning Update.

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APPENDIX A

Example Load Plans

This appendix presents example load plan options to be utilized for various potential Rapid Rescue configurations. As the customer cannot dictate strategic airlift assignments, the CSAR community must be proactive in its planning to prepare for the range of likely scenarios they will be presented with. A tabular summary of each is provided below followed by individual breakouts of each load plan.

Table A.1. Summary of Example Load Plans

	TOTAL AIRLIFT ASSETS REQUIRED	TOTAL POSSIBLE PERSONNEL (per aircraft)	TOTAL POSSIBLE PALLET POSITIONS (per aircraft)
OPTION 1	1 (C-5)	81	4-8
OPTION 2	2 (C-17)	50 (20, 30)	7 (4, 3)
OPTION 3A	3 (C-17)	90 (30, 30, 30)	12 (4, 4, 4)
OPTION 3B	3 (C-17)	70 (20, 30, 30)	17 (4, 3, 10)
HC-130J	n/a	30	6
* Numbers derived from USAF fact sheets, http://www.af.mil/AboutUs/FactSheets.aspx .			

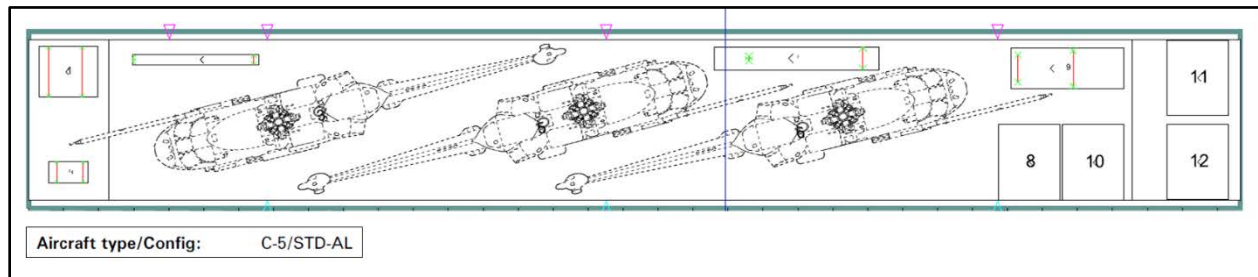


Figure A.1. Example Load Plan / Option-1 / C-15

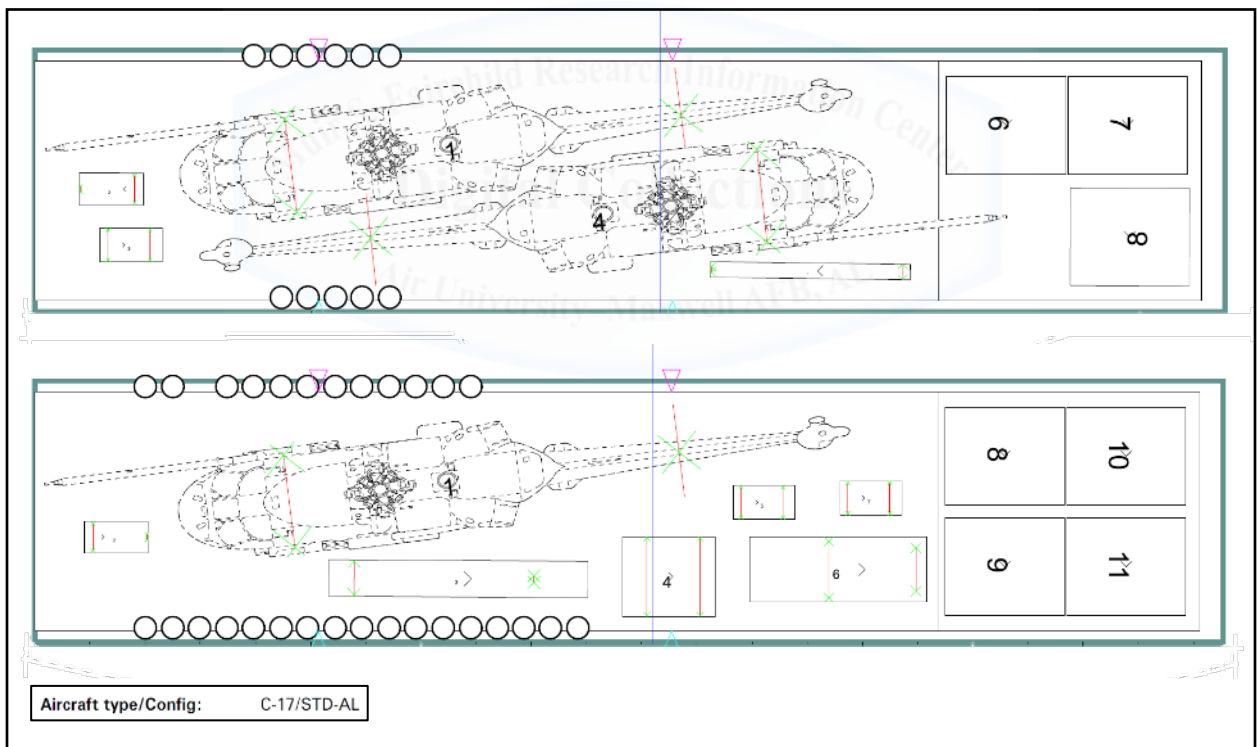


Figure A.2. Example Load Plan / Option-2 / 2x C-17

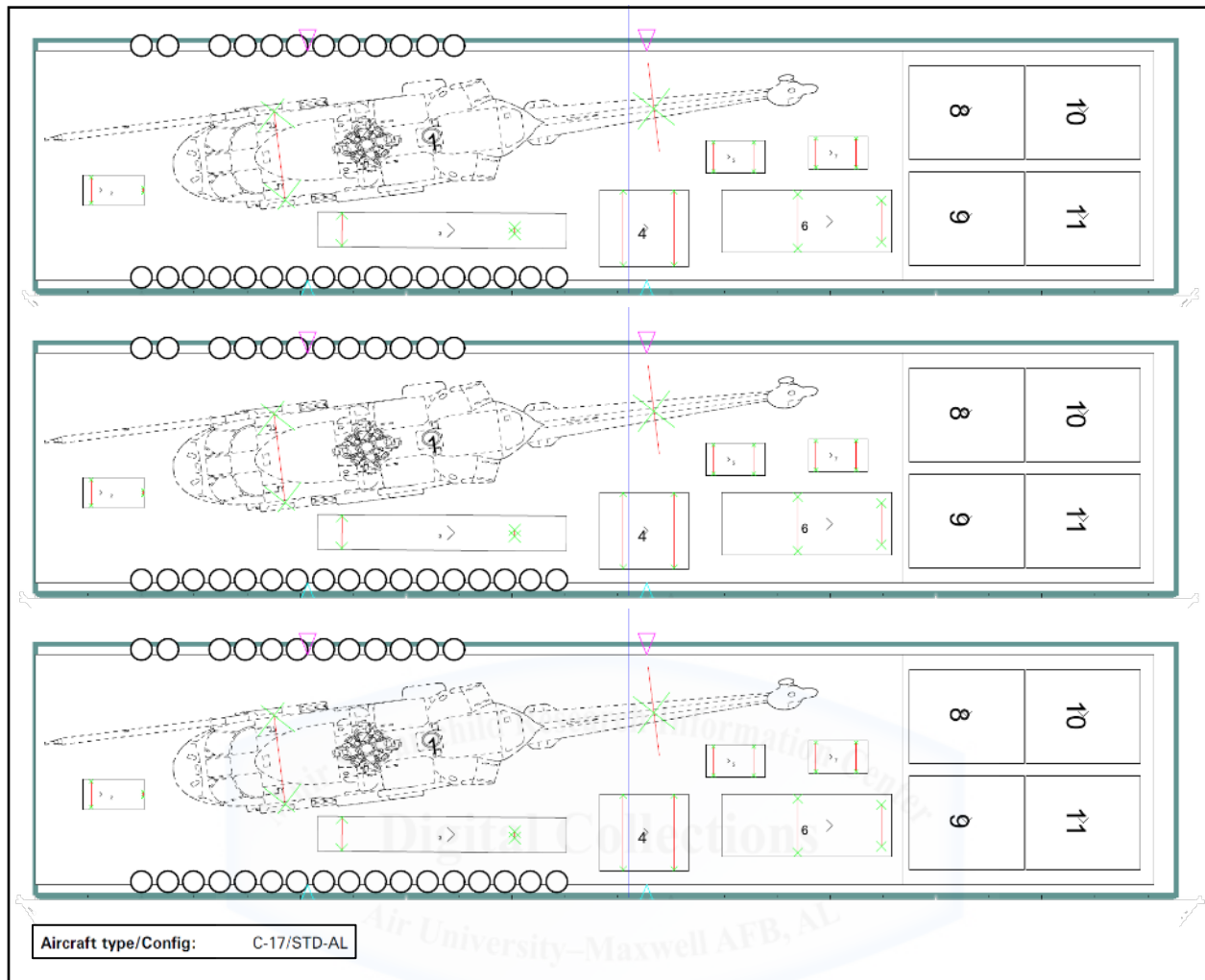


Figure A.3. Example Load Plan / Option-3A / 3x C-17 / Near-Identical Loads

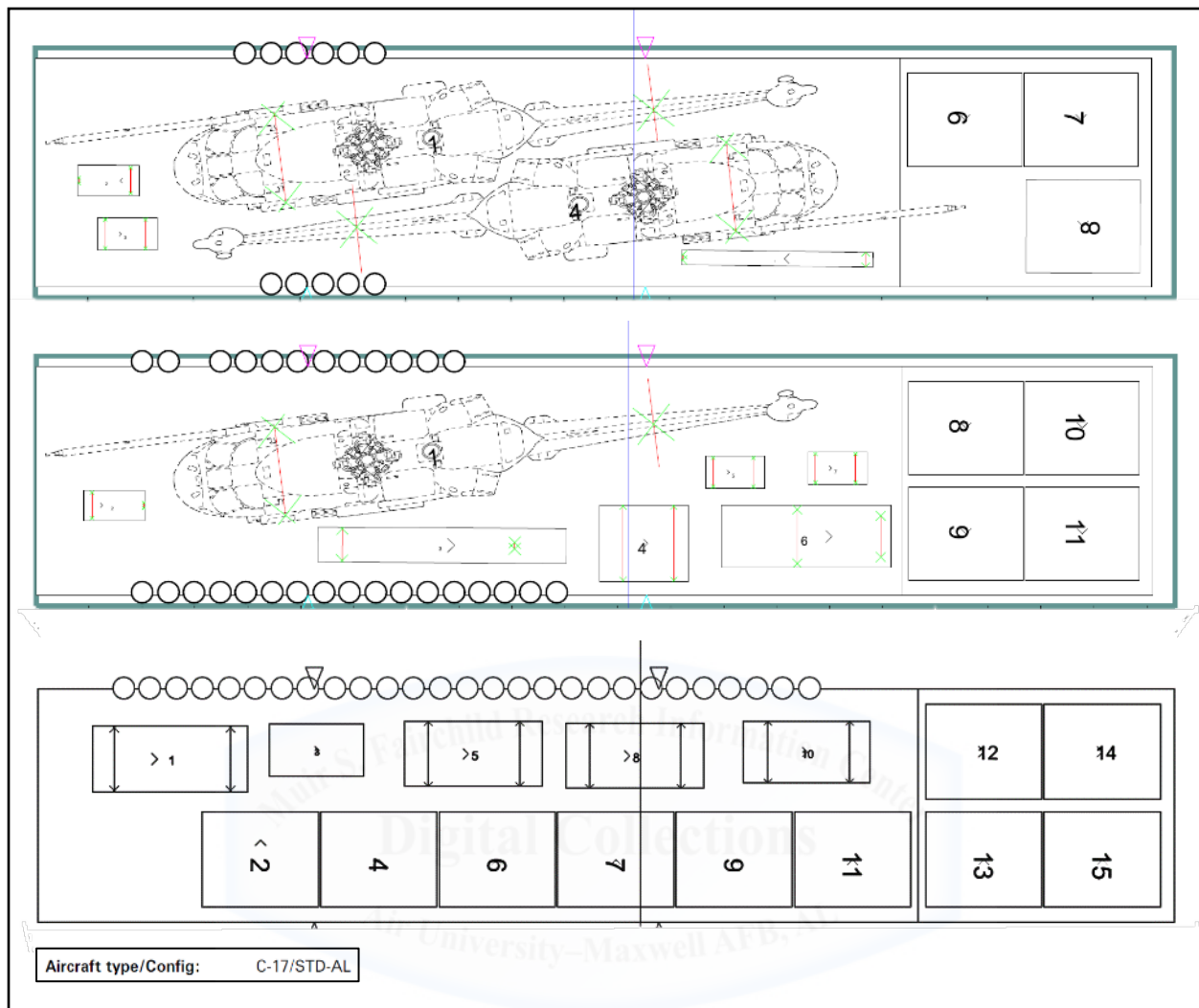


Figure A.4. Example Load Plan / Option-3B / 3x C-17 / Specialized Loads

APPENDIX B

Reference Material

This appendix provides a near-comprehensive list of material that should be consolidated and referenced by command staff and project officers during determination and development of training requirements, fielding of syllabi, and certification of load plan and TPFDD templates. Lessons learned capture significant hurdles that will need to be addressed across functions and major commands to make Rapid Rescue and like task units fully capable. These documents have been compiled by the author and will be filed with the task-lead unit, the Weapons and Tactics Flight of the 347th Operations Support Squadron; available upon request.

DOCUMENTS:

- Lightning Bolt CONOP Brief
- Lightning Bolt Brief
- Lightning Bolt Progression Theory
- After Action Report: Validation of OPLAN Lightning Bolt, 27 Feb 06 – 13 Mar 06
- Rapid Roll-On, Roll-Off (RORO) After Action Report – 3 August 2015
- Rapid Rescue After Action Report – 24 September 2015
- After Action Report: Exercise Trident Juncture 2015 – 22 November 15
- Rapid Rescue Training Syllabus
- Rapid Rescue Personnel Analysis Tool

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